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A Revision of the Genus Oropodes Casey

(Coleoptera: Pselaphidae)

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Oropodes was proposed for a single species from southern California. A second species, from Oregon, was added by Park and Wagner in 1961 but it was sufficiently different for the authors to consider it necessary to establish the subgenus Euplecturga for its placement. A study of the characters discriminating 75 genera of the Euplectini showed the differences between Oropodes (sensu strictione) and Oropodes (Euplecturga) to be adequate for generic status. The genera and their type species are redefined, three new species from northern California and one from Oregon are assigned to Oropodes, and two new species, one from Oregon and one from northern California are placed in Euplecturga.

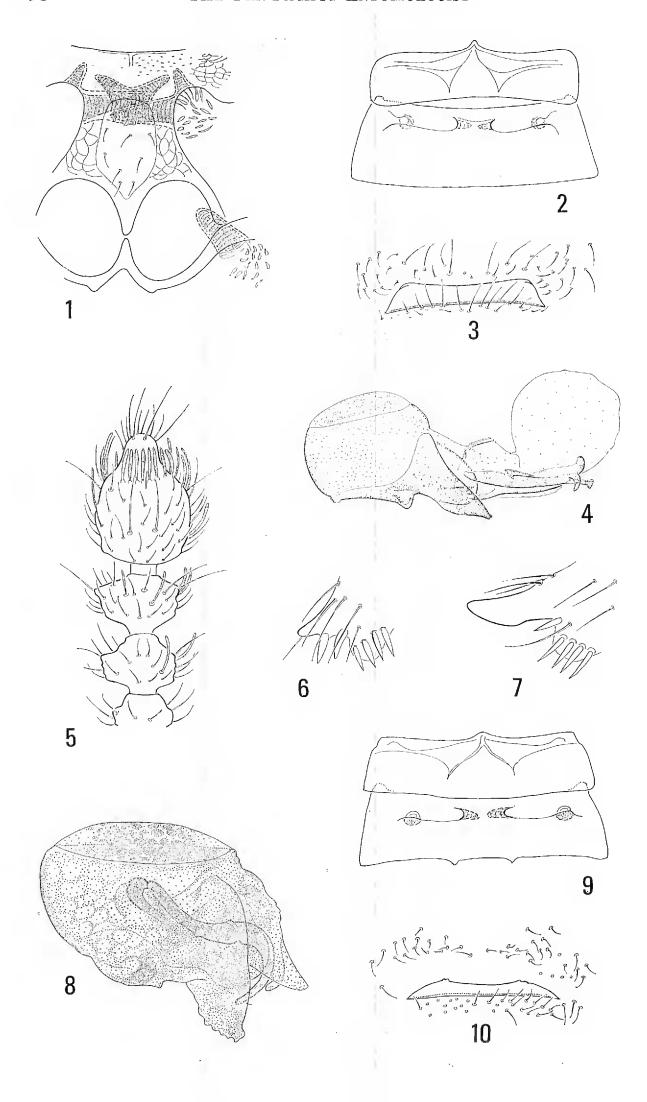
The holotypes of all new species are slide-mounted and deposited at the Department of Entomology Museum at the University of California at Davis unless otherwise indicated. Methods of measurement and slide mounting techniques are as stated in Grigarick and Schuster, 1971.

OROPODES CASEY

Oropodes Casey, 1893. Ann. New York Acad. Sci., 7: 453.

Foveation of head limited to a pair of vertexal and gular foveae; the latter with a single exterior opening. Venter of head with normal acuminate setae except gular foveae guard setae, no median carina. Antennal club three segmented, segment X nearly symmetrical. Pronotum with longitudinal median depression and biarcuate depression between lateral foveae; basal depressions present. Elytra with sutural, two discal, and subhumeral foveae. Prosternum with procoxal foveae, without lateral foveae or median carina. Mesosternum (Fig. 1) with a pair of forked lateral mesosternal foveae, a pair of median mesosternal foveae with their inner bases joined, and a pair of prominent lateral mesocoxal foveae. Without promesocoxal or metasternal foveae. Mesocoxal cavities usually slightly open but may be closed. Profemur without prominent sensory modifications, protarsi with primary and accessory claw, metacoxae contiguous. Tergites I to IV sub-

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equal, I (Fig. 41) with median basal depression extending to lateral foveae, setae on apical margin, without abdominal carinae. Sternite II (Fig. 2) with two setate depressions, each bordered by a medial and lateral fovea.

Oropodes shows a rather close relationship to Foveoscapha Park and Wagner (1961) but differs from it by not having metasternal foveae and having the first 4 visible tergites, subequal as opposed to tergite I of Foveoscapha being noticeably larger.

KEY TO MALES OF OROPODES

1.	Profemur without spine2
	Profemur with spine 3
2.(1)	Metatroehanter with ventral spine dybasi
	Metatrochanter without spine arcaps
3.(1)	Sternitc II with paired median projections on apical margin4
	Sternite II with apieal margin simple orbiceps
4.(3)	Metatibia with apieal spine subequal to apical spine of mesotibia
	Metatibia with apical spine smaller than apical spine of mesotibia
	KEY TO FEMALES OF OROPODES
1.	Fifth visible tergite with modifications3
	Fifth visible tergite unmodified2
2.(1)	Metatroehanter rounded ventrally arcaps
	Metatrochanter angulate ventrally
3.(1)	
	Tergite V with prominent median projection rumseyensis
4.(3)	Tergite V with median depression, each side bordered by small pro-
	jection nuclere
	Apieal margin of tergite V with small indentation, without lateral pro-
	jections orbiceps

Oropodes orbiceps Casey

(Figs. 1-6)

Oropodes orbiceps Casey, 1893. Ann. New York Aead. Sci. 7: 453–4. Holotype ♀, Los Angeles County, California (USNM-38611). Type of genus.

Male.—Reddish brown. Length 1.8 mm, width .535 mm. Head 277 μ long, 285 μ wide; vertexal foveae 113 μ between eenters, without guard setae. Ventral surface

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Figs. 1-6. Oropodes orbiceps Casey, male. Fig. 1. Mesosternal area. Fig. 2. Sternites I and II. Fig. 3. Projection of sternite III. Fig. 4. Genitalia, lateral view. Fig. 5. Antennal segments IX-XI. Fig. 6. Apex of mesotibia.

Figs. 7-10. Oropodes rumseyensis, new species, male. Fig. 7. Apex of mesotibia. Fig. 8. Genitalia, lateral view. Fig. 9. Sternites I and II. Fig. 10. Projection of sternite III.

with simple setae, gular foveae without flattened setae. Each eye with about 52 facets. Antenna 660 μ long; segment I 82 μ long \times 60 μ wide; II 67 μ \times 48 μ ; III 52 μ \times 37 μ ; IV 37 μ \times 45 μ ; V 45 μ \times 52 μ ; VI 45 μ \times 52 μ ; VIII 52 μ \times 55 μ ; IX 52 μ \times 67 μ ; X 78 μ \times 80 μ , symmetrical; XI 120 μ \times 90 μ , apical one-third conical, base of cone circled with flattened setae (Fig. 5).

Pronotum 345 μ long, 346 μ wide. Elytron 543 μ long, 270 μ wide, winged. Profemur 390 μ long, prominent spine on venter, one-third from base; protibia with weak apical spine; mesofemur 300 μ long \times 97 μ wide; mesotibia (Fig. 6) with curved apical spine 15 μ long; metafemur 315 μ \times 90 μ ; metatibia with curved apical spine 32 μ long.

First visible tergite 315 μ wide at base; basal depression with divergent basal peaks 120 μ apart, bordered laterally by foveae 243 μ apart, setae on apical margin. Sternite II (Fig. 2) with slight median depression; III with median apical projection (Fig. 3) shallowly emarginate, 150 μ at base. Penial plate asymmetrical; 127 μ long, 60 μ wide; setate area 37 μ wide. Genitalia (Fig. 4) 465 μ long, about 165 μ deep.

Female.—Median apical margin of tergite V with small indentation. Sternite VI with raised band projecting across basal one-third of segment to median apex, apical margin strongly concave.

Distribution.—Two males and two females were recorded from Pasadena, Los Angeles County, California. A third female that appears to be conspecific was collected on Mt. Diablo, Contra Costa County, California on July 10, 1958 by R. O. Schuster and L. M. Smith.

Discussion.—Oropodes orbiceps appears to be most closely related to nuclere. It is distinguished from nuclere by having the apical margin of the pygidium of the female strongly concave and by the absence of median projections on sternite II of the male.

Oropodes rumseyensis, new species

(Figs. 7–10)

Male holotype.—Red-brown. Length 1.8 mm, width 0.56 mm. Head 305 μ long, 340 μ wide; vertexal foveae 130 μ between centers, without setae. Ventral surface of head with unmodified setae; opening of gular foveae with flattened setae. Each eye with about 40 facets. Antenna 650 μ long; segment I 105 μ long \times 60 μ wide; II 60 μ \times 50 μ ; III 60 μ \times 45 μ ; IV 45 μ \times 47 μ ; V–VIII 150 μ long \times 60 μ wide; IX 50 μ \times 75 μ ; X 58 μ 90 μ , symmetrical; XI 125 μ \times 92 μ , apical one-third conical, with flattened setae.

Pronotum 390 μ long, 435 μ wide. Elytron 600 μ long, 370 μ wide. Winged. Profemur 345 μ long \times 100 μ wide, with spine 40 μ from base. Mesofemur 355 μ \times 120 μ ; mesotibia with prominent apical spine (Fig. 7). Metafemur 405 μ \times 110 μ ; metatibia with prominent apical spine. Metasternum with longitudinal median depression.

First visible tergite 390 μ wide at base, lateral foveae 330 μ between centers forming lateral margins of basal impression, specialized setae on apical margin. Sternite II (Fig. 9) medianly depressed, apical margin with projections 155 μ apart; III with median apical projection (Fig. 10), bipeaked, about 150 μ at

base. Penial plate tear-drop shaped; 215 μ long, 115 μ wide; setate area 150 μ \times 190 μ . Genitalia (Fig. 8) 450 μ long, 240 μ deep.

Female.—Fifth visible tergite with prominent median projection.

Distribution.—The holotype male, two male and 10 female paratypes were collected three miles north of Rumsey, Yolo County, California, on August 29, 1959 by R. O. Schuster and L. M. Smith. An additional female paratype was collected on November 3, 1959 by A. A. Grigarick. Conspecific but not included in the type series is a female from Patton Mill, Tehama County, California on August 30, 1960, by R. O. Schuster.

Discussion.—The prominent median projection on the pygidium of the female is distinctive for the female of *rumseyensis* and the subequal apical spines of the meso- and metatibia separate the males from those of *nuclere*.

Oropodes dybasi, new species

(Figs. 11–17)

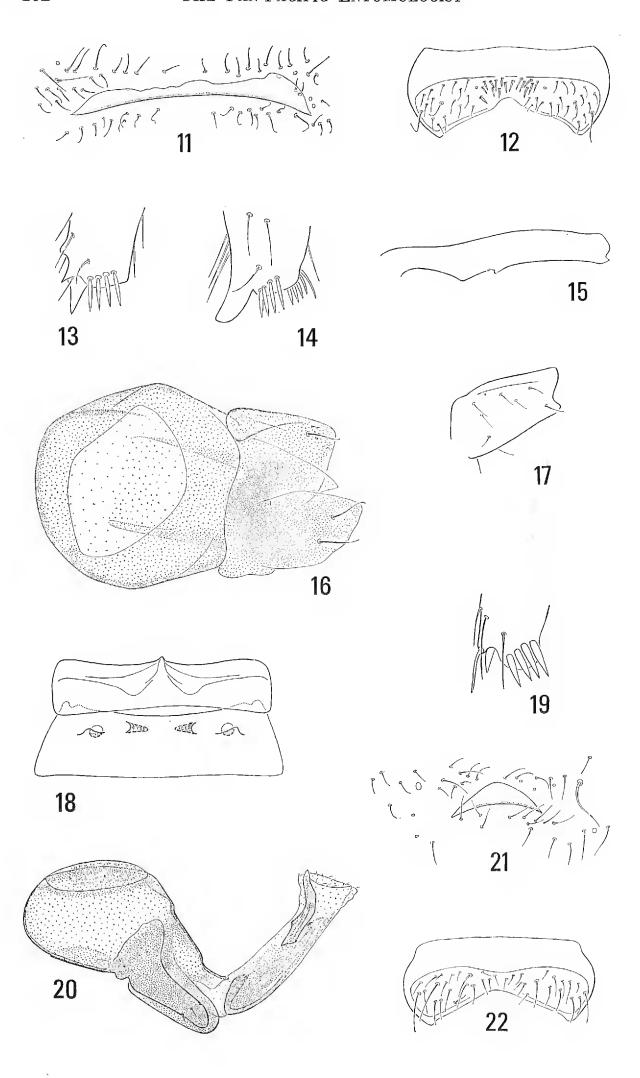
Male Holotype.—Red-brown. Length 1.85 mm, width 0.59 mm. Head 310 μ wide; vertexal foveae 150 μ between centers. Setae on ventral surface simple, sparce. Each eye with about 12 facets. Antenna about 750 μ long; segment I 118 μ long \times 78 μ wide; II 65 μ \times 55 μ ; III 48 μ \times 44 μ ; IV 51 μ \times 36 μ ; V 65 μ \times 44 μ ; VI 58 μ \times 40 μ ; VIII 45 μ \times 77 μ ; VIII 44 μ \times 55 μ ; IX 60 μ \times 78 μ ; X 60 μ \times 92 μ , symmetrical; XI 116 μ \times 110 μ , apical one-third conical, base of cone with circle of flattened setae.

Pronotum 384 μ long \times 420 μ wide, basal one-third with teeth on lateral margin. Elytron 580 μ long, 340 μ wide. Winged. Profemur 374 μ long, 102 μ wide, without spine; protibia (Fig. 15) with short median spine. Mesofemur 354 μ \times 94 μ , mesotibia with small apical spines (Fig. 13). Metatrochanter with prominent apical spine (Fig. 17), metafemur 394 μ \times 109 μ , metatibia with curved apical spine (Fig. 14) 37 μ long.

First visible tergite 385 μ at base, lateral foveae 320 μ between centers forming lateral margins of bi-peaked basal depression; specialized setae on apical margin. Sternites II, IV medianly depressed; III with median transverse projection (Fig. 11) 203 μ across at base, apical margin straight. Sternite VI as in figure 12. Penial plate tear-drop shaped; about 200 μ long, 66 μ wide; setate area 51 μ × 58 μ . Genitalia (Fig. 16) 325 μ long, about 200 μ deep.

Female.—Fifth visible tergite unmodified. Metatrochanter angulate ventrally.

Distribution.—The holotype male and female paratype were collected along Well's Creek, 9 mi. SW Philomath, Benton County, Oregon, on June 9, 1957 by H. S. Dybas. The collection was made from fir-maple litter. The types are deposited in the Field Museum of Natural History, Chicago, Illinois.



Discussion.—The male of this species is most closely related to arcaps but differs by having a spine in the middle of the protibia and venter of the metatrochanter. Females of dybasi and arcaps also show similarities but the metatrochanter is angulate ventrally on dybasi and rounded on arcaps.

Oropodes arcaps, new species

(Figs. 18–22)

Male holotype.—Light red-brown, legs and antennal segment XI yellow-brown; palpi yellow. Length 1.7 mm, width 0.5 mm. Head 285 μ long, 315 μ wide; vertexal foveae 135 μ between centers, without guard setae. Ventral surface with acuminate setae. Each eye with about 20 facets. Antenna 580 μ long; segment I 90 μ long \times 60 μ wide; II 65 μ \times 50 μ ; III-VIII 210 μ long \times 45–50 μ wide; IX 40 μ \times 62 μ ; X 45 μ \times 75 μ , symmetrical; XI 122 μ \times 90 μ , apical one-third conical, with flattened setae.

Pronotum 350 μ long, 380 μ wide. Elytron 450 μ long, 305 μ wide. Brachypterous, about 1 mm long. Legs without spines. Profemur 340 $\mu \times$ 90 μ ; mesofemur 315 $\mu \times$ 77 μ ; metafemur 375 $\mu \times$ 90 μ . Metasternum with slight, median, longitudinal depression.

First visible tergite 360 μ wide at base; lateral foveae 270 μ between centers, forming lateral margins of basal depression, setae on apical margin. Sternites II (Fig. 18), IV flattened medianly. Sternite III with median apical projection (Fig. 21), base 60 μ wide, converging to single peak. Sternite VI as in figure 22. Penial plate tear-drop shaped; 195 μ long, 82 μ wide; setate area 50 μ long \times 60 μ wide. Genitalia (Fig. 20) approximately 450 μ long, 195 μ deep.

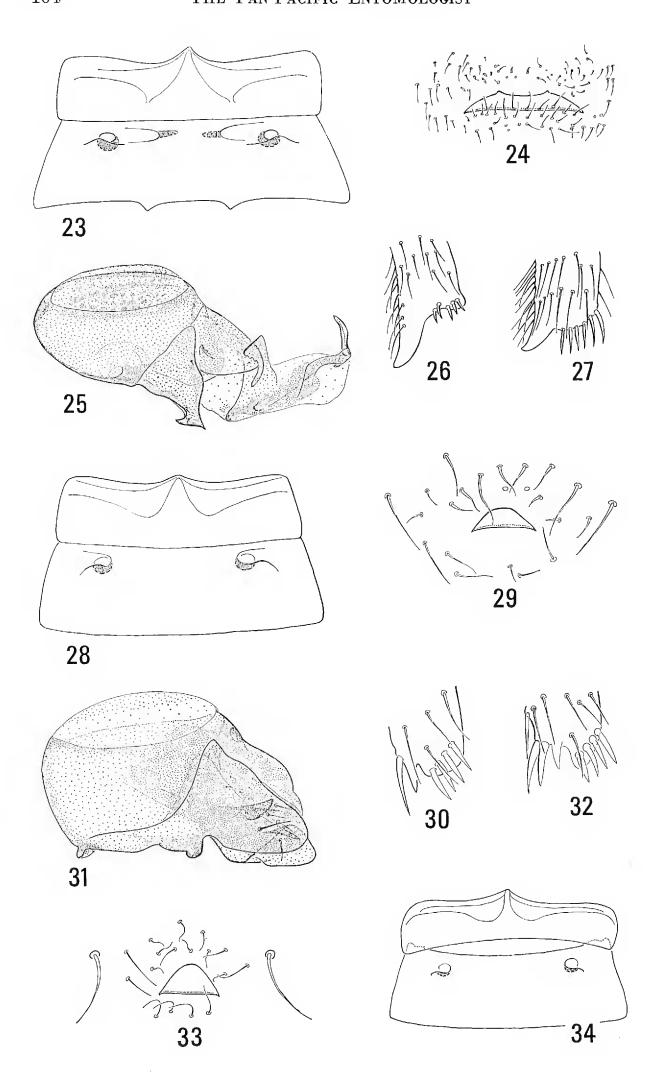
Female.—Fifth visible tergite unmodified. Sternite VI rounded medianly. Meta-trochanter rounded ventrally.

Distribution.—The holotype male and two female paratypes were collected at Casper, Mendocino County, California, on (3) July 29, 1954 and (2 2) September 30, 1954, by J. R. Helfer. Conspecific but not included in the type series are two males from S. P. Taylor State Park, Marin County, California, collected on February 3, 1958 by J. R. Helfer and one male on November 1, 1953 by R. O. Schuster and G. A. Marsh.

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Figs. 11–17. Oropodes dybasi, new species, male. Fig. 11. Projection of sternite III (apical margin distorted in slide preparation). Fig. 12. Sternite VI. Fig. 13. Apex of mesotibia. Fig. 14. Apex of metatibia. Fig. 15. Protibia. Fig. 16. Genitalia, dorsal view. Fig. 17. Metatrochanter.

Figs. 18–22. Oropodes arcaps, new species, male. Fig. 18. Sternites I and II. Fig. 19. Apex of mesotibia. Fig. 20. Genitalia, lateral view. Fig. 21. Projection of sternite III. Fig. 22. Sternite VI.



Discussion.—The male of this species is distinguished from other members of Oropodes by the absence of a spine on the profemur and metatrochanter. The females differ by having the fifth visible tergite and metatrochanter unmodified.

Oropodes nuclere, new species

(Figs. 23–24, 41)

Male holotype.—Light red-brown, legs yellow-brown, palpi yellow. Length 1.9 mm. Head 305 μ long, 330 μ wide; vertexal foveae 135 μ between eenters, without setae. Ventral surface with all setae simple. Each eye with about 55 facets. Antenna 634 μ long; segment I 90 μ long \times 65 μ wide; II 65 μ \times 50 μ ; III–VIII 305 μ long, 45–60 μ wide; IX 45 μ \times 75 μ ; X 55 μ \times 90 μ , symmetrical; XI 140 μ \times 95 μ , apical one-third conical, with flattened setae.

Pronotum 375 μ long, 405 μ wide. Elytron 585 μ long, 295 μ wide. Winged, 2.2 mm. Profemur 360 μ × 110 μ , small spine 45 μ from base. Mesofemur 360 μ × 118 μ ; mesotibia with prominent, eurved spine at apex (Fig. 26). Metafemur 395 μ × 112 μ ; metatibia with curved apieal spine (Fig. 27), slightly smaller than spine of mesotibia. Metasternum with longitudinal, median depression.

First visible tergite (Fig. 41) 360 μ wide at base; lateral foveae 300 μ between eenters, forming sides of basal depression, setae on apical margin. Sternite II (Fig. 23) medianly depressed, apical margin with projections 155 μ apart; III with median, bi-peaked apical projection (Fig. 24), 135 μ at base. Penial plate tear-drop shaped; 120 μ long, 105 μ wide; setate area 105 $\mu \times$ 75 μ . Genitalia (Fig. 25) 405 μ long from base to tip of right paramere, 240 μ deep.

Female.—Fifth visible tergite with median depression at base and slight projection on each side below. Sternite VI with raised median keel.

Distribution.—The holotype male and two female paratypes were collected at Lucerne, Lake County, California, June 1, 1961, by R. O. Schuster. Conspecific but not included in the type series is a male from Sequoia National Park, Ash Mountain Road, California on April 30, 1956 by H. R. Moffitt.

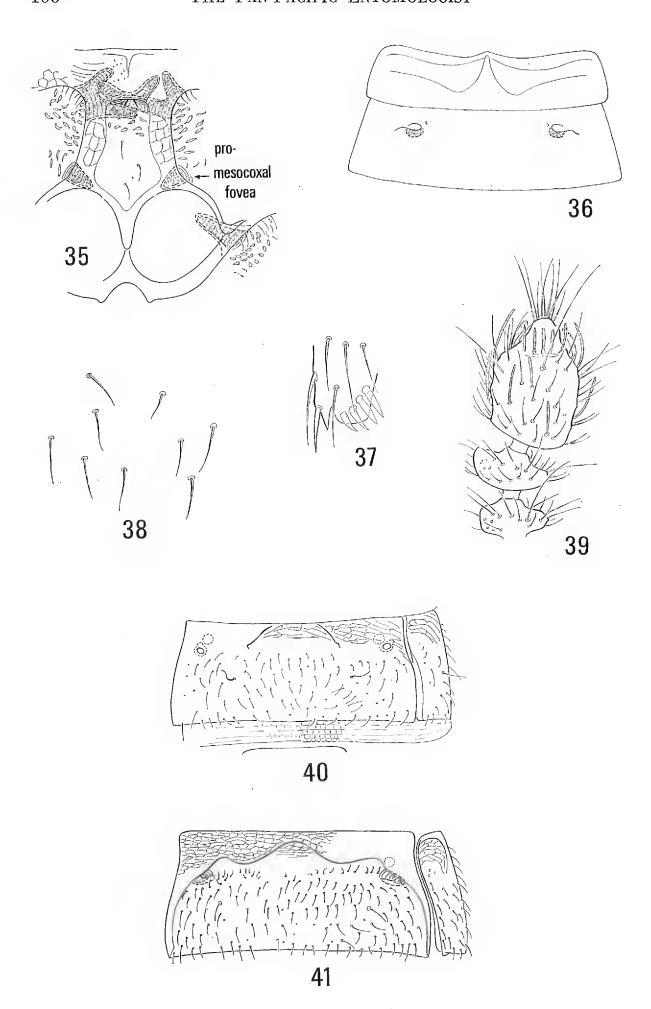
Discussion.—Oropodes nuclere shows a number of similarities to the females of orbiceps and males of rumseyensis. The male of nuclere has genitalic differences and posseses an apical spine on the mesotibia that

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Figs. 23–27. Oropodes nuclere, new species, male. Fig. 23. Sternites I and II. Fig. 24. Projection of sternite III. Fig. 25. Genitalia, lateral view. Fig. 26. Apex of mesotibia. Fig. 27. Apex of metatibia.

Figs. 28-30. Euplecturga impressicollis Park and Wagner, male. Fig. 28. Sternites I and II. Fig. 29. Projection of sternite III. Fig. 30. Apex of mesotibia.

Figs. 31-34. Euplecturga fideli, new species, male. Fig. 31. Genitalia, lateral view. Fig. 32. Apex of mesotibia. Fig. 33. Projection of sternite III. Fig. 34. Sternites I and II.



is larger than the spine on the metatibia. These spines are subequal for *rumseyensis*. Small lateral projections are present on the pygidium of the female of *nuclere* but not *orbiceps*.

EUPLECTURGA, NEW STATUS

Euplecturga Park and Wagner, 1962, Univ. Wash. Publ. Biol., 16: 15.

The characteristics given for *Oropodes* apply to *Euplecturga* with the following exceptions: antennal club consisting of 5 segments, X prominently asymmetrical; promesocoxal foveae present (Fig. 35), mesocoxal cavities closed; sternite II (Fig. 28), with one setate depression bordered by a single fovea on each side; basal interruption of tergite I (Fig. 40) does not include lateral foveae or specialized setae.

Euplecturga has a number of characteristics in common with Tetrascapha Schuster and Marsh and Abdiungus Park and Wagner but the presence of promesocoxal foveae distinguish it from these and all other euplectine genera in North America except Thesium Casey.

KEY TO MALES OF EUPLECTURGA

1. Sternite III with median projection _______ 2
Sternite III without median projection _______ norstelcha
2.(1) Median projection of sternite III near midline ______ impressicollis
Median projection of sternite III on apical one-third ______ fideli

Euplecturga impressicollis Park and Wagner (Figs. 28–30)

Oropodes impressicollis Park and Wagner, 1962. Univ. Washington, Pub. Biol. 16: 15-16. Holotype &, Forest Grove, Oregon (Park Collection), Field Museum of Natural History. Type of genus.

Male.—Red-brown. Length 1.6 mm. Head 315 μ long, 340 μ wide; vertexal foveae 130 μ between centers, without guard setae. Ventral surface without specialized setae. Each eye with 50–55 facets. Antenna 690 μ long; segment I 110 μ long \times 60 μ wide; II 70 μ \times 55 μ ; III–VI 180 μ \times about 50 μ ; VII 45 μ \times 65 μ ; VIII 35 μ \times 65 μ ; IX 45 μ \times 75 μ ; X 45 μ \times 81 μ , slightly asymmetrical; XI 155 μ \times 100 μ , with flattened setae at base of conical apex.

Pronotum 340 μ long, 375 μ wide. Elytron 545 μ long, 300 μ wide. Winged.

Figs. 35–39. Euplecturga norstelcha, new species, malc. Fig. 35. Mesosternal area. Fig. 36. Sternites I and II. Fig. 37. Apex of mesotibia. Fig. 38. Median area of sternite III. Fig. 39. Antennal segments IX–XI.

Fig. 40. Euplecturga fideli, tergite I.

Fig. 41. Oropodes nuclere, tergite I.

Legs unadorned. Profemur 340 μ long \times 90 μ wide; mesofemur 285 μ \times 75 μ ; metafemur 345 μ \times 85 μ .

First visible tergite 325 μ wide at base; lateral foveae 270 μ between centers; basal interruption 150 μ wide, margins divergent; trace of basal interruption en II, both without specialized setae; tergites I–IV subequal. Sternite II (Fig. 28) with basal depression extending beyond lateral foveae, 270 μ between centers of foveae; III with median projection (Fig. 29) 35 μ wide at base 60 μ from apex of segment, apex of projection on midline of segment, surrounded by specialized setae. Penial plate asymmetrical; setate area 75 μ long, 60 μ wide. Genitalia 255 μ long, 110 μ deep.

Female.—Unknown.

Distribution.—Forest Grove, Oregon (type locality). One male, Yamhill County, Oregon, collected in May, 1935 by E. S. Ross.

Discussion.—E. impressicollis is most closely related to fideli. The tenth antennal segment of impressicollis is wider in relation to its length than the same segment of fideli and the median projection of sternite III of impressicollis arises closer to the center of the length of the segment than that of fideli.

Euplecturga fideli, new species

(Figs. 31–34, 40)

Male holotype.—Head 300 μ long, 335 μ wide; vertexal foveae 135 μ between centers, nude. Ventral surface with aciculate setae. Antenna about 600 μ long; segment I 80 μ long × 57 μ wide; II 60 μ × 50 μ ; III–VI 165 μ × 45 μ ; VII–VIII 35 μ × 50 μ ; IX 35 μ × 62 μ ; X 45 μ × 65 μ , asymmetrical; XI 150 μ × 80 μ , flattened setae at base of cone.

Pronotum 315 μ long, 355 μ wide. Elytron 480 μ long, 288 μ wide, with sutural, 2 discal, and subhumeral foveae. Winged. Profemur 330 μ long \times 82 μ wide; mesofemur 310 μ \times 90 μ ; metafemur 360 μ \times 85 μ . Legs without spines.

First visible tergite (Fig. 40) 325 μ wide at base; basal interruption 124 μ wide, margins divergent; II with trace of basal interruption, both without setae; tergites I–IV subequal in length. Sternite II (Fig. 34) with single basal impression between foveae, 325 μ between foveae, impression with numerous setae; III with median rounded apical projection (Fig. 33) 29 μ wide, 36 μ from apex of segment, apex of projection near apical one-third of segment, surrounded by specialized setae. Genitalia (Fig. 31) 180 μ long, 122 μ deep.

Female.—Unknown.

Distribution.—The holotype male was collected 9 miles northeast of Soquel, Santa Cruz County, California on December 31, 1956 by S. M. Fidel.

Discussion.—The prominently asymmetrical tenth antennal segment of fideli separates it from impressicollis. These species are similar in many other respects with fideli being smaller.

Euplecturga norstelcha, new species

(Figs. 35–39)

Male holotype.—Red-brown. Length 1.7 mm, width 0.54 mm. Head 300 μ long, 335 μ wide; vertexal foveae 150 μ between centers, without guard setae. Ventral surface without capitate setae. Each eye with about 48 facets. Antenna about 625 μ long; segment I 150 μ long \times 60 μ wide; II 65 μ \times 50 μ ; III–VI 180 μ \times 45–50 μ ; VII 40 μ \times 60 μ ; VIII 45 μ \times 65 μ ; IX 50 μ \times 80 μ ; X 50 μ \times 85 μ , VII–X asymmetrical; XI 145 μ \times 105 μ , with flattened setae, apical one-third conical (Fig. 39).

Pronotum 345 μ long, 365 μ wide. Elytron 510 μ long, 315 μ wide. Winged. Legs without spines. Profemur 355 μ long \times 90 μ wide; mesofemur 325 μ \times 80 μ ; metafemur 375 μ \times 75 μ .

First visible tergite 355 μ wide at base; lateral foveae 290 μ between centers; basal interruption 123 μ at widest part, sides divergent; basal interruption of II 145 μ wide, both without setae; tergites I–IV subequal in length. Sternite II (Fig. 36) with single basal depression extending beyond lateral foveae, 285 μ between centers of foveae; III without median projection (Fig. 38). Penial plate asymmetrical; setate area 160 μ long, 80 μ wide; apex with round hyaline plate. Genitalia 335 μ long, 168 μ deep.

Distribution.—The holotype male and a male paratype were collected at Charleston, Coos County, Oregon on Sept. 1, 1959, by V. D. Roth. Conspecific but not included in the type series are one male and three females collected from Triangle Lake, Lane County, Oregon on April 13, 1947 by I. M. Newell.

Discussion.—The absence of a modification on sternite III readily set the males of norstelcha apart from other males of Euplecturga.

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